

SEQ ID NO: Sequence

- 1 *Rana pipiens* liver ribonuclease cDNA (RaPLR1)
- 2 *Rana pipiens* liver ribonuclease amino acid (RaPLR1)
- 3 *Rana pipiens* ribonuclease cDNA with Met23Leu
(recombinant RaPLR1 Met 23Leu)
- 4 *Rana pipiens* ribonuclease amino acid with Met23Leu
(recombinant RaPLR1 Met 23Leu)
- 5 *Rana pipiens* ribonuclease cDNA with Met at position 1
(recombinant Met(-1) RaPLR1)
- 6 *Rana pipiens* ribonuclease amino acid with Met at position 1
(recombinant Met(-1) RaPLR1)
- 7 *Rana pipiens* ribonuclease cDNA with Met at position 1 and Met24Leu
(recombinant Met(-1) RaPLR1 Met23Leu)
- 8 *Rana pipiens* ribonuclease amino acid with Met at position 1 and Met24Leu
(recombinant Met(-1) RaPLR1 Met23Leu)
- 9 *Rana pipiens* ribonuclease amino acid with (His)₆, Met at position 7 and
Met30Leu (recombinant Met(-1) RaPLR1 Met23Leu-(His)₆)
- 10 *Rana pipiens* ribonuclease cDNA with Gln1Ser (recombinant RaPLR1 Q1S)
- 11 *Rana pipiens* ribonuclease amino acid with Gln1Ser (recombinant RaPLR1 Q1S)
- 12 *Rana pipiens* ribonuclease cDNA with Met at position 1 and Gln2Ser
(recombinant Met(-1) RaPLR1 Q1S)
- 13 *Rana pipiens* ribonuclease amino acid with Met at position 1 and Gln2Ser
(recombinant Met(-1) RaPLR1 Q1S)
- 14 *Rana catesbeiana* oocyte ribonuclease synthetic gene cDNA (RaCOR1)
- 15 *Rana catesbeiana* oocyte ribonuclease synthetic gene amino acid (RaCOR1)
- 16 *Rana catesbeiana* ribonuclease cDNA with Met at position 1
(recombinant Met(-1) RaCOR1)
- 17 *Rana catesbeiana* ribonuclease amino acid with Met at position 1
(recombinant Met(-1) RaCOR1)
- 18 *Rana catesbeiana* ribonuclease cDNA with Met22Leu and Met57Leu
(recombinant RaCOR1 Met22Leu Met57Leu)
- 19 *Rana catesbeiana* ribonuclease amino acid with Met22Leu and Met57Leu
(recombinant RaCOR1 Met22Leu Met57Leu)
- 20 *Rana catesbeiana* ribonuclease cDNA with Met at position 1, Met23Leu and
Met58Leu (recombinant Met(-1) RaCOR1 Met22Leu Met57Leu)
- 21 *Rana catesbeiana* ribonuclease amino acid with Met at position 1, Met23Leu and
Met58Leu (recombinant Met(-1) RaCOR1 Met22Leu Met57Leu)
- 22 *Rana catesbeiana* ribonuclease amino acid with (His)₆, Met at position 7,
Met23Leu and Met58Leu
(recombinant Met(-1) RaCOR1 Met22Leu Met57Leu-(His)₆)
- 23 *Rana catesbeiana* ribonuclease cDNA with Gln1Ser (recombinant RaCOR1 Q1S)
- 24 *Rana catesbeiana* ribonuclease amino acid with Gln1Ser
(recombinant RaCOR1 Q1S)
- 25 *Rana catesbeiana* ribonuclease cDNA with Met at position 1 and Gln2Ser
(recombinant Met(-1) RaCOR1 Q1S)

095260-00475560

- 2
- 26 *Rana catesbeiana* ribonuclease amino acid with Met at position 1 and Gln2Ser
(recombinant Met(-1) RaCOR1 Q1S)
 - 27 *Rana pipiens* ribonuclease Clone 5a1b cDNA insert
 - 28 *Rana pipiens* ribonuclease Clone 5a1b amino acid with signal peptide
 - 29 CAAX motif to target heterologous proteins to the plasma membrane
 - 30 *Rana pipiens* forward degenerate primer
 - 31 *Rana pipiens* reverse degenerate primer
 - 32 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
 - 33 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
 - 34 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
 - 35 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
 - 36 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
 - 37 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
 - 38 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
 - 39 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
 - 40 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
 - 41 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
 - 42 *Rana catesbeiana* insertion primer for *NdeI* restriction site
 - 43 six histidine residue tag at amino terminus

095250-00479550

SEQ ID NO:1/2

DNA sequence 312 b.p.

linear

caa gac tgg ctc acg ttc cag aag aag cac ctg aca aac acc cgg gat gcc gac tgc aac
gln asp trp leu thr phe gln lys lys his leu thr asn thr arg asp val asp cys asn
aac atc atg tca aca aac ctg ttc cac tgc aag gac aag aac acc ttc acc tat tca cgc
asn ile met ser thr asn leu phe his cys lys asp lys asn thr phe ile tyr ser arg
cct gag cca gtc aag gcc acc tgc aaa gga att ata gcc ccc aaa aac gtc cca acc acc
pro glu pro val lys ala ile cys lys gly ile ile ala ser lys asn val leu thr thr
ctc gag ttc tat ctc tct gat tgc aac gca aca agc agg cct tgc aag tat aaa tta aag
ser glu phe tyr leu ser asp cys asn val thr ser arg pro cys lys tyr lys leu lys
aaa tca acc aac aca ttc tgc gca att tgc gag aat caa gcc cca gca cat ttc gtc ggc
lys ser thr asn thr phe cys val thr cys glu asn gln ala pro val his phe val gly
gcc gga cac tgc
val gly his cys

RaPLR1

095400-095500

SEQ ID NO:3/4

DNA sequence 315 b.p.

linear

caa gac tgg ctc acg ctc cag aag aag cac ctg aca aac acc cgg gat gtc gac tgc
gln asp trp leu thr phe gln lys lys his leu thr asn thr arg asp val asp cys

aac aat att ccg tca aca aac ctg ctc cac tgc aag gat aag aac act ctc atc tac tca
asn asn ile leu ser thr asn leu phe his cys lys asp lys asn thr phe ile tyr ser

cgc ctc gag cca gtc aag gcc att tgt aaa gga att ata gcc ctc aaa aat gtc tca acc
arg pro glu pro val lys ala ile cys lys gly ile ile ala ser lys asn val leu thr

acc ctc gag ctc tac ctc ctc gat tgc aac gca aca agc agg cct tgc aag tac aaa tca
thr ser glu phe tyr leu ser asp cys asn val thr ser arg pro cys lys tyr lys leu

aag aaa tca act aac aca ttc tgc gca act tgc gag aac caa gct cca gca cat ctc gtc
lys lys ser thr asn thr phe cys val thr cys glu asn gln ala pro val his phe val

ggc gcc gga cat tgc
gly val gly his cys

recombinant RaPLR1 Met23Leu

05961400-092501

SEQ ID NO:5/6

DNA sequence 315 b.p.

linear

atg caa gac tgg ctt acg ttc cag aag aag cac cctg aca aac acc cgg gat gcc gac cgt
met gln asp trp leu thr phe gln lys lys his leu thr asn thr arg asp val asp cys

aat aat acc atg tca aca aac tct ttc cac tgc aag gac aag aac acc ttc acc tat tca
asn asn ile met ser thr asn leu phe his cys lys asp lys asn thr phe ile tyr ser

cgt cct gag cca gtg aag gcc acc tgc aaa gga acc aca gcc tcc aaa aat gtg tca acc
arg pro glu pro val lys ala ile cys lys gly ile ile ala ser lys asn val leu thr

acc ttc gag ttc tat ttc ttc gat tgc aac gca aca agc agg cct tgc aag tat aaa tca
thr ser glu phe tyr leu ser asp cys asn val thr ser arg pro cys lys tyr lys leu

aag aaa tca acc aac aca ttc tgc gca acc tgc gag aac caa gcc cca gta cat ttc gtg
lys lys ser thr asn thr phe cys val thr cys glu asn gln ala pro val his phe val

ggc gcc gga cat tgc
gly val gly his cys

recombinant Met(-1) RaPLR1

00479660"005260

SEQ ID NO:7/8

DNA sequence 315 b.p.

linear

atg caa gac tgg ctt acg ttt cag aag aag cac ctg aca aac acc cgg gat gtt gac tgt
met gln asp trp leu thr phe gln lys lys his leu thr asn thr arg asp val asp cys
aat aat att ctg tca aca aac ttg ttc cac tgc aag gat aag aac act ttt atc tat tca
asn asn ile leu ser thr asn leu phe his cys lys asp lys asn thr phe ile tyr ser
cgt cct gag cca gtg aag gcc atc tgt aaa gga att ata gcc tcc aaa aat gtg tca act
arg pro glu pro val lys ala ile cys lys gly ile ile ala ser lys asn val leu thr
acc ttc gag ttc tat ctc cct gat tgc aat gca aca agc agg cct tgc aag tat aaa tca
thr ser glu phe tyr leu ser asp cys asn val thr ser arg pro cys lys tyr lys leu
aag aza cea act aat aca ttc tgt gta act tgt gag aat cea gct cca gta cat ttc gtg
lys lys ser thr asn thr phe cys val thr cys glu asn gln ala pro val his phe val
ggc gtc gga cat tgc
gly val gly his cys

recombinant Met(-1) RaPLR1 Met23Leu

F05260-0049560

SEQ ID NO:7/9

DNA sequence 315 b.p.

linear

(His)₆- acg caa gac cgg ccc acg ccc cag aag aag cac cctg aca aac acc cgg gat gtc gac tgc
met gln asp trp leu thr phe gln lys lys his leu thr asn thr arg asp val asp cys
aac aat acc cctg tca aca aac ttg ttc cac tgc aag gac aag aac acc ccc acc cac tca
asn asn ile leu ser thr asn leu phe his cys lys asp lys asn thr phe ile tyr ser
cgt cct gag cca gtg aag gcc acc tgt aaa gga att ata gcc tcc aaa aat gtg tca acc
arg pro glu pro val lys ala ile cys lys gly ile ile ala ser lys asn val leu thr
acc tcc gag ccc tac ccc ccc gat cgt aac gca aca agc agg cct tgc aag tac aaa tta
thr ser glu phe tyr leu ser asp cys asn val thr ser arg pro cys lys tyr lys leu
aag aaa tca acc aat aca ccc cgt gca acc tgt gag aat cca gcc cca gca cat ccc gtg
lys lys ser thr asn thr phe cys val thr cys glu asn gln ala pro val his phe val
ggc gtc gga cat tgc
gly val gly his cys

recombinant Met(-1) RaPLR1 Met23Leu-(His)₆

09961400-092501
T05260-0047560

SEQ ID NO:12/13

DNA sequence 315 b.p.

linear

atg tca gac tgg ctt acg ttt cag aag aag cac ctg aca aac acc cgg gat gct gac tgt
met ser asp trp leu thr phe gln lys lys his leu thr asn thr arg asp val asp cys
aat aat atc atg tca aca aac ttg ttc cac tgc aag gac aag aac act ttt atc tat tca
asn asn ile met ser thr asn leu phe his cys lys asp lys asn thr phe ile tyr ser
cgt cct gag cca gtg aag gcc atc tgt aaa gga att ata gcc tcc aaa aat gtg tta act
arg pro glu pro val lys ala ile cys lys gly ile ile ala ser lys asn val leu thr
acc tct gag ttt tat ctc tct gat tgc aat gta aca agc agg cct tgc aag tat aaa tta
thr ser glu phe tyr leu ser asp cys asn val thr ser arg pro cys lys tyr lys leu
aag aaa tca act aat aca ttt tgc gta act tgt gag aat caa gct cca gta cat ttc gtg
lys lys ser thr asn thr phe cys val thr cys glu asn gln ala pro val his phe val
ggt gcc gga cat tgc
gly val gly his cys

recombinant Met(-1) RaPLR1 Q1S

095400-092501

SEQ ID NO:14/15

DNA sequence 330 b.p.

linear

CAG AAC TCG GCT ACT TTC CAG CAG AAA CAT ATC ATC AAC ACT CCG ATC ATC TGC AAC ACT
 gln asn trp ala thr phe gln gln lys his ile ile asn thr pro ile ile cys asn thr
 ATC ATG GAC AAC AAC ATC TAC ATC GTT CGT GGT CAG TGC AAA CGT GTT AAC ACT TTC ATC
 ile met asp asn asn ile tyr ile val gly gly gln cys lys arg val asn thr phe ile
 ATC TCT TCT GCT ACT ACT GTT AAA GCT ATC TGC ACT GGT GTT ATC AAC ATG AAC GTT CTG
 ile ser ser ala thr thr val lys ala ile cys thr gly val ile asn met asn val leu
 TCT ACT ACT CGT TTC CAG CTG AAC ACT TGC ACT CGT ACT TCT ATC ACT CCG CGT CCG TGC
 ser thr thr arg phe gln leu asn thr cys thr arg thr ser ile thr pro arg pro cys
 CCG TAG TCT TCT CGT ACT GAA ACT AAC TAC ATC TGC GTT AAA TGC GAA AAC CAG TAC CCG
 pro tyr ser ser arg thr glu thr asn tyr ile cys val lys cys glu asn gln tyr pro
 GTT CAT TTC GCT GGT ATC CGT CGT TGC CCG
 val his phe ala gly ile gly arg cys pro

Rana catesbeiana synthetic gene & translated amino acid sequence

F05260-001960

SEQ ID NO:16/17

DNA sequence 333 b.p.

linear

ATG CAG AAC TGG GCT ACT TTC CAG CAG AAA CAT ATC ATC AAC ACT CCG ATC ATC TGC AAC
met gln asn trp ala thr phe gln gln lys his ile ile asn thr pro ile ile cys asn

ACT ATC ATG GAC AAC AAC ATC TAC ATC GTT GGT GGT CAG TGC AAA CGT GTT AAC ACT TTC
thr ile met asp asn asn ile tyr ile val gly gly gln cys lys arg val asn thr phe

ATC ATC TCT TCT GCT ACT ACT GTT AAA GCT ATC TGC ACT GGT GTT ATC AAC ATG AAC GTT
ile ile ser ser ala thr thr val lys ala ile cys thr gly val ile asn met asn val

CTG TCT ACT ACT CGT TTC CAG CTG AAC ACT TGC ACT CGT ACT TCT ATC ACT CCG CGT CCG
leu ser thr thr arg phe gln leu asn thr cys thr arg thr ser ile thr pro arg pro

TGC CCG TAC TCT TCT CGT ACT GAA ACT AAC TAC ATC TGC GTT AAA TGC GAA AAC CAG TAC
cys pro tyr ser ser arg thr glu thr asn tyr ile cys val lys cys glu asn gln tyr

CCG GTT CAT TTC GCT GGT ATC GGT CGT TGC CCG
pro val his phe ala gly ile gly arg cys pro

[Met-(-1)] *Rana catesbeiana* gene & translation of
expressed protein

T05260-004T5660

SEQ ID NO:18/19

DNA sequence 333 b.p.

linear

CAG AAC TGG GCT ACT TTC CAG CAG AAA CAT ATC ATC AAC ACT CCG ATC ATC TGC AAC
 gln asn trp ala thr phe gln gln lys his ile ile asn thr pro ile ile cys asn
 ACT ATC CTG GAC AAC AAC ATC TAC ATC GTT GGT GGT CAG TGC AAA CGT GTT AAC ACT TTC
 thr ile leu asp asn asn ile tyr ile val gly gly gln cys lys arg val asn thr phe
 ATC ATC TCT TCT GCT ACT ACT GTT AAA GCT ATC TGC ACT GGT GTT ATC AAC CTG AAC GTT
 ile ile ser ser ala thr thr val lys ala ile cys thr gly val ile asn leu asn val
 CTG TCT ACT ACT CGT TTC CAG CTG AAC ACT TGC ACT CGT ACT TCT ATC ACT CCG CGT CCG
 leu ser thr thr arg phe gln leu asn thr cys thr arg thr ser ile thr pro arg pro
 TGC CCG TAC TCT TCT CGT ACT GAA ACT AAC TAC ATC TGC GTT AAA TGC GAA AAC CAG TAC
 cys pro tyr ser ser arg thr glu thr asn tyr ile cys val lys cys glu asn gln tyr
 CCG GTT CAT TTC GCT GGT ATC GGT CGT TGC CCG
 pro val his phe ala gly ile gly arg cys pro

Rana catesbeiana gene with two mutations
 to regenerate pyroglutamic acid N-terminal
 Met 22 Leu
 Met 57 Leu

09561400-092501
 005260-00475660

SEQ ID NO:20/21

DNA sequence 333 b.p.

linear

ATG CAG AAC TGG GCT ACT TTC CAG CAG AAA CAT ATC ATC AAC ACT CCG ATC ATC TGC AAC
 met gln asn trp ala thr phe gln gln lys his ile ile asn thr pro ile ile cys asn
 ACT ATC CTG GAC AAC AAC ATC TAC ATC GTT GGT GGT CAG TGC AAA GGT GTT AAC ACT TTC
 thr ile leu asp asn asn ile tyr ile val gly gly gln cys lys arg val asn thr phe
 ATC ATC TCT TCT GCT ACT ACT GTT AAA GCT ATC TGC ACT GGT GTT ATC AAC CTG AAC GTT
 ile ile ser ser ala thr thr val lys ala ile cys thr gly val ile asn leu asn val
 CTG TCT ACT ACT CGT TTC CAG CTG AAC ACT TGC ACT CGT ACT TCT ATC ACT CCG CGT CCG
 leu ser thr thr arg phe gln leu asn thr cys thr arg thr ser ile thr pro arg pro
 TGC CCG TAC TCT TCT CGT ACT GAA ACT AAC TAC ATC TGC GTT AAA TGC GAA AAC CAG TAC
 cys pro tyr ser ser arg thr glu thr asn tyr ile cys val lys cys glu asn gln tyr
 CCG GTT CAT TTC GCT GGT ATC GGT GGT TGC CCG
 pro val his phe ala gly ile gly arg cys pro

[Met-(-1)] *Rana catesbeiana* gene with two mutations
to regenerate pyroglutamic acid N-terminal

Met 22 Leu

Met 57 Leu

F05260"004T5660

SEQ ID NO:20/22

DNA sequence 333 b.p.

linear

(His)₆- ATG CAG AAC TGG GCT ACT TTC CAG CAG AAA CAT ATC ATC AAC ACT CCG ATC ATC TGC AAC
 met gln asn trp ala thr phe gln gln lys his ile ile asn thr pro ile ile cys asn

ACT ATC CTG GAC AAC AAC ATC TAC ATC GTT GGT GGT CAG TGC AAA CGT GTT AAC ACT TTC
 thr ile leu asp asn asn ile tyr ile val gly gly gln cys lys arg val asn thr phe

ATC ATC TCT TCT GCT ACT ACT GTT AAA GCT ATC TGC ACT GGT GTT ATC AAC CTG AAC GTT
 ile ile ser ser ala thr thr val lys ala ile cys thr gly val ile asn leu asn val

CTG TCT ACT ACT GGT TTC CAG CTG AAC ACT TGC ACT CGT ACT TCT ATC ACT CCG GGT CCG
 leu ser thr thr arg phe gln leu asn thr cys thr arg thr ser ile thr pro arg pro

TGC CCG TAC TCT TCT GGT ACT GAA ACT AAC TAC ATC TGC GTT AAA TGC GAA AAC CAG TAC
 cys pro tyr ser ser arg thr glu thr asn tyr ile cys val lys cys gly asn gln tyr

CCG GTT CAT TTC GCT GGT ATC GGT GGT TGC CCG
 pro val his phe ala gly ile gly arg cys pro

{Met-(-1)} *Rana catesbeiana* gene with two mutations
 to regenerate pyroglutamic acid N-terminal

Met 22 Leu

Met 57 Leu

(His)₆

F05260"004T9660

SEQ ID NO:23/24

DNA sequence 333 b.p.

linear

TCA AAC TGG GCT ACT TTC CAG CAG AAA CAT ATC ATC AAC ACT CCG ATC ATC TGC AAC
ser asn trp ala thr phe gln gln lys his ile ile asn thr pro ile ile cys asn

ACT ATC ATG GAC AAC AAC ATC TAC ATC GTT GGT GGT CAG TGC AAA CGT GTT AAC ACT TTC
thr ile met asp asn asn ile tyr ile val gly gly gln cys lys arg val asn thr phe

ATC ATC TCT TCT GCT ACT ACT GTT AAA GCT ATC TGC ACT GGT GTT ATC AAC ATG AAC GTT
ile ile ser ser ala thr thr val lys ala ile cys thr gly val ile asn met asn val

CTG TCT ACT ACT CGT TTC CAG CTG AAC ACT TGC ACT CGT ACT TCT ATC ACT CCG CGT CCG
leu ser thr thr arg phe gln leu asn thr cys thr arg thr ser ile thr pro arg pro

TGC CCG TAC TCT TCT CGT ACT GAA ACT AAC TAC ATC TGC GTT AAA TGC GAA AAC CAG TAC
cys pro tyr ser ser arg thr glu thr asn tyr ile cys val lys cys glu asn gln tyr

CCG GTT CAT TTC GCT GGT ATC GGT CGT TGC CCG
pro val his phe ala gly ile gly arg cys pro

Q1S *Rana catesbeiana* gene
(serine in 1 position)

F05260"004960

SEQ ID NO:25/26

DNA sequence 333 b.p.

linear

ATG TCA AAC TGG GCT ACT TTC CAG CAG AAA CAT ATC ATC AAC ACT CCG ATC ATC TGC AAC
 met ser asn trp ala thr phe gln gln lys his ile ile asn thr pro ile ile cys asn
 ACT ATC ATG GAC AAC AAC ATC TAC ATC GTT GGT GGT CAG TGC AAA CGT GTT AAC ACT TTC
 thr ile met asp asn asn ile tyr ile val gly gly gln cys lys arg val asn thr phe
 ATC ATC TCT TCT GCT ACT ACT GTT AAA GCT ATC TGC ACT GGT GTT ATC AAC ATG AAC GTT
 ile ile ser ser ala thr thr val lys ala ile cys thr gly val ile asn met asn val
 CTG TCT ACT ACT CGT TTC CAG CTG AAC ACT TGC ACT CGT ACT TCT ATC ACT CCG CGT CCG
 leu ser thr thr arg phe gln leu asn thr cys thr arg thr ser ile thr pro arg pro
 TGC CCG TAC TCT TCT CGT ACT GAA ACT AAC TAC ATC TGC GTT AAA TGC GAA AAC CAG TAC
 cys pro tyr ser ser arg thr glu thr asn tyr ile cys val lys cys glu asn gln tyr
 CCG GTT CAT TTC GCT GGT ATC GGT CGT TGC CCG
 pro val his phe ala gly ile gly arg cys pro

[Met-(-1)] Q1S *Rana catesbeiana* gene
 (serine in 1 position)

T05260-00419550

SEQ ID NO: 27/28

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1   atcagttgct catcgtttga ccaagttggt ttccatctga agcaatatatt
51  atatataatt tctcttatat ataaaggcct gatcacgact tccagaatgt
                                     M F
101 ttccaaaatt ctcatttctc ctgatatttg cagttgtttt gagtctcact
    P K F S F L L I F A V V L S L T
151 cataagtcct tatgtcaaga ctggcttacg ttccagaaga agcacctgac
    H K S L C Q D W L T F Q K K H L T
201 aaacacccgg gatgttgact gtaataatat catgtcaaca aacttggtcc
    N T R D V D C N N I M S T N L F H
251 actgcaagga caagaacact tttatctatt cacgtcctga gccagtgaag
    C K D K N T F I Y S R P E P V K
301 gccatctgta aaggaattat agcctccaaa aatgtgttaa ctacctctga
    A I C K G I I A S K N V L T T S E
351 gttttatctc tctgattgca atgtaacaag caggccttgc aagtataaat
    F Y L S D C N V T S R P C K Y K L
401 taaagaaatc aactaataca ttttgtgtaa cttgtgagaa tcaagctcca
    K K S T N T F C V T C E N Q A P
451 gtacatttcg tgggtgtcgg acattgctag aaatatgttt gacaacaggg
    V H F V G V G H C *
501 atgtgataag cagctgcaag aaattatttt gaagtgaatt tactaaagac
551 actaattttg cataaatttt cccagagct taccggtagt aagaaaattc
601 caacagggag ccaagcacag aaagtaaaact aaggagccaa agtaattata
651 aaagtccacac tggaccgctg ctactgcact cagatgacca aatgagaaac
701 agacaaaaaac agcagagttg ggaagcgag atccggggagg tggcggggag
751 tcaattgggg gcggagtcca tgtgagattt ggaaccgttt gttgctggtg
801 aagcatgtgg ccggtgcaca gtacacatgg ggaaagatag tgggattggc
851 cgggctcgct gtgggtggtg cggcgggttg gccaaagggt gtggggagat
901 ggctgtcccc cttctgtggg gggctgtgga cagagggagc tgcggaccag
951 ggggtgggagg cctggagaga attttcaaac agctgacgtg gccggggctg
1001 ggcagcatcg gggaggggaa gggctgggct cagatccagg aagcatggtc
1051 actgtatgac cagagtggaa gatggcagag ccgctgcagt ggccggggag
1101 accagagggg tctgtgcccc gcctttcccc tccctgatgt ggcccgtttt
1151 tggttatggt aaccgctccc agctgttttg ggggtgtttc ggggttcgca
1201 tttttggtct gcggctccct ctgtccacgg ccctcatgga gggggggtgg
1251 gcatttctcc accgcctttg gctctgttgc tggcactgtc gcagcgagtt
1301 tggccagtca tggctcattt tcccatttgt catgtgtgtt ggttgcattt
1351 tttgtcggcg gtggactgtt ttgaatttca catggattcc atcttcggtt
1401 ggttccttgc cacctcctgg atctgtgctt tccaattctg ttttttcccc
1451 agcgcttagt ggatgcagtg aaactctggt gattaccatc atccaatcat
1501 gtgcaagaaa aaatattttc atatttcttc cacccaattg ggtattcatt
1551 aggaagtttg agcacattca cgttctaggg aaaatgagtg caactgcact
1601 tccaaagtcc acagtctatt tgcctttagt aaatccaccc cattatttct
1651 gagcagagga caaatctatg gcaacaaaaa aactttacct actgaattat
1701 tttatataga ttgaagataa tctttctttc atttctctaa tatttgtaac
1751 aaaattaata cataacagct atgtattata ccacagcagc aaatgttaaa
1801 atagttttta acgtaaaata tgttttacct taaagtggaa gtaaacttct
1851 atcactaaat tttacctata ggtgagaccc atgcgctctt caggaatggc
1901 cgctgggtgct gttccttcag agccctgtgc tgcgaacggc ggctcccgtg
1951 tgcattgtaca ggagtgcagt catcacagct ccggccagtc acagagttag
2001 agttcaagtg tgagtggctt gaccacagat gatgtcgctc ccaaacatgt
2051 gtgcgggggt ctcggtttgc ggcgaggac actgggggaa tagcatgggt
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